UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,709	09/25/2003	Charles S. Graham	ROC920030205US1	6126

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IBM CORPORATION, INTELLECTUAL PROPERTY LAW	JEAN GILLES, JUDE	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/670,709	GRAHAM ET AL.
	Examiner	Art Unit	
	JUDE J. JEAN GILLES	2143	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _25 September 2003_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-41_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-41_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _25 September 2003_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This Office Action is responsive to communication filed on 09/25/2003.

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2.   Claims 27-31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claim 27: Claim27 recites the steps of "*A system for auto-creation of network interfaces, the system comprising: partitions, each partition having a network agent to be invoked upon receipt of a message, wherein the network agent is adapted to configure an internal network interface of the internal network interfaces in response to the message; an internal VLAN manager to configure an internal network to facilitate communication between at least two of the partitions, the internal VLAN manager to determine distinct partition parameters for each partition based upon   parameters and ranges associated with the internal network and to generate messages for each partition, to configure the internal network interfaces; and a partition manager to transmit the messages from the internal VLAN manager to the at least two partitions, each of the messages being transmitted to a different partition of at least two partitions based upon a list of the at least two of the partitions indicating an association with the internal network partition.*" These steps fail to definitely recite a hardware executing the computer software, rendering the

claim as recited only an abstract idea. The claim equates merely to a computer

code or concept per se since "*system for auto-creation of network*

interfaces…comprising: partitions…" in the context of the claimed invention is

interpreted by the Examiner to represent computer code or concept, which does not

have a practical application or tangible result.

Regarding claims 28-41 are also nonstatutory. The independent claims are

nonstatutory because of the reason mention for the rejection of claim27 and the

dependent claims are nonstatutory because they depend on a nonstatutory base claim.

Appropriate correction is required. The above noticed problems are just

exemplary. Applicant is required to totally check the application for error and correct the

same.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Brown et al (hereinafter Brown) US 20060106585 A1 in view of Pulsipher et al

(hereinafter Pulsipher) US 20040215781 A1.

Regarding claim 1, Brown teaches the substance of the invention as claimed. Brown

discloses a method for auto-configuring an internal network interface, wherein the

internal network interface supports communication between a partition and other

participating partitions associated with an internal network (figs. 1 and 87), the method

comprising:

determining an internal VLAN identification associated with the internal network

(fig. 74; 0908; note mediation of traffic with WLAN and the internal network address);

obtaining global parameters and ranges associated with the internal network

(0908);

determining that the partition is participating with the internal network (0908; *see*

that VLANs provide isolation and partition the network inside the BIG Computer);

determining partition parameters for the partition based upon the global

parameters and ranges (0135, 0524);

Brown fails to specifically disclose :"generating a message having the partition

parameters and being associated with a network agent; and invoking the network agent

via transmission of the message, the network agent being responsive to the message to

configure the internal network interface based upon the partition parameters".

Nonetheless, this feature is well-known in the art and would have been an

obvious modification to the system of Brown as evidenced by Pulsipher.

In the same field of endeavor, Pulsipher teaches: "*FIG. 1 is a flowchart illustrating*

the steps for displaying event information correlated with a performance parameter of

the managed system. In step 102, an address forwarding database (FDB) is collected

from the network. Various network management agents (e.g., processes that perform

network management functions) can be invoked on devices located throughout the

network to perform the data collection...an FDB can be a forwarding database,

maintained by a switch or bridge, of all MAC addresses received on all of its ports. The

switch or bridge can use the information in the FDB to decide whether a frame

should be forwarded or filtered. A typical FDB table can hold up to 128K

entries. Each entry can include the MAC address of the device sending the

packet, an identifier for the port on which the MAC address was received, and

an identifier for the portion of the network (e.g., the Virtual Local Area

Network or VLAN) to which the device belongs (see Pulsipher; 0014-0015).

Accordingly, it would have been obvious for an average skill in the art to have

recognized the need to modify the system of Brown to incorporate the features of

Pulsipher for the purpose of managing device network, thereby determining device

network connectivity and configuration as stated by Pulsipher in the summary of the

invention par 0007. By this rationale, claim 1 is rejected.

Regarding claims 2-41, the combination Brown- Pulsipher teaches:

2. The method of claim 1, further comprising transmitting the global parameters and

internal VLAN identification to a partition manager to create a network switch, wherein

the network switch is adapted to transmit transactions from the partition to at least one

of the other participating partitions (Brown; 0135, 0524).

3. The method of claim 1, further comprising generating a request for current partition

parameters associated with the internal network interface and presenting the current

partition parameters to a user to reconfigure the internal network interface (Brown;

0666, 0732).

4. The method of claim 1, further comprising receiving locally stored global parameters

in response to the message and comparing the locally stored global parameters with a

master copy of the global parameters, to determine whether the locally stored global

parameters are consistent, wherein the partition maintains the locally stored global

parameters (Brown; 0135, 0524)..

5. The method of claim 1, further comprising queuing the message for retransmission in

response to an error associated with invoking the network agent (see Brown; 0165,

0471).

6. The method of claim 1, further comprising receiving a reply in response to the

message, the reply indicating whether configuration of the internal network interface is

successful (Brown; 0213).

7. The method of claim 1, wherein obtaining global parameters and ranges comprises

obtaining parameters to govern transactions transmitted via the internal network

(Brown; 0135, 0524)..

8. The method of claim 1, wherein obtaining parameters comprises interacting with a user to define parameters from a group of parameters comprising a frame size, a duplex setting, and a retry value (Brown; 0618).

9. The method of claim 1, wherein determining the partition parameters comprises interacting with a user to define parameters from a group of parameters comprising an Internet protocol address, a port number, a VLAN interface name (Brown; 0455, 0801, 0994).

10. The method of claim 1, wherein determining the partition parameters comprises defining the partition parameters for the partition, the partition parameters being different from parameters determined for the other participating partitions and being within the ranges associated with the internal network (Brown; 0524, 530).

11. The method of claim 1, wherein invoking the network agent comprises storing the message in memory associated with the partition and transmitting an interrupt to the partition to indicate receipt of the message (Brown; 0532, 544).

12. A method for auto-configuring an internal network interface, wherein the internal network interface supports communication between a partition and other participating partitions associated with an internal network (Brown, fig 1, and 87), the method comprising:

receiving a message having partition parameters and global parameters from an

internal VLAN manager, wherein the message is associated with a network agent

(Brown; 0908); invoking the network agent in response to receiving the message; and

configuring the internal network interface based upon the partition parameters via the

network agent (Brown; 0135, 0524).

13. The method of claim 12, further comprising generating a reply in response to the

message wherein the reply indicates whether configuring the internal network interface

is successful and transmitting the reply to the internal VLAN manager.

14. The method of claim 12, further comprising validating the partition parameters upon

receipt of the message against limitations associated with the partition.

15. The method of claim 12, wherein configuring the internal network interface

comprises creating a VLAN device driver and associating the VLAN device driver with a

TCP/IP stack (Brown, 0654).

16. The method of claim 15, wherein configuring the internal network interface

comprises modifying the partition parameters associated with the VLAN device driver

(Brown, 0654).

17. A method for auto-configuring an internal network interface, wherein the internal

network interface supports communication between a partition and other participating

partitions associated with an internal network, the method comprising: installing an

internal VLAN manager on a logically partition server, the internal VLAN manager to

generate a message for the partition having partition parameters based upon global

parameters and ranges associated with the internal network (Brown; 0135, 0524);

installing a network agent in the partition, the network agent to be invoked upon receipt

of the message by the partition and being adapted to configure the internal network

interface based upon partition parameters in response to the message; and utilizing a

message transmitter on the logically partitioned computer system to transmit the

message from the internal VLAN manager to the partition (see Pulsipher; 0014-0015).

18. The method of claim 17, wherein utilizing the message transmitter comprises

associating the message with the partition and transmitting the message to the

message transmitter, the message transmitter being adapted to store the message in

memory allocated for access by the partition and to transmit an interrupt to the partition

to indicate storage of the message in the memory (see Pulsipher; 0014-0015).

19. An apparatus for auto-creation of network interfaces for partitions participating with

an internal network, the apparatus comprising: a partition having a network agent to be

invoked upon receipt of a message, the partition being one of the partitions participating

with the internal network, wherein the network agent is adapted to configure an internal

network interface of the internal network interfaces in response to the message; an

internal VLAN manager to determine global parameters and ranges associated with an internal network (Brown; 0135, 0524), determine partition parameters associated with the partition based upon the ranges, and generate the message based upon global parameters and the partition parameters, for the internal network interface (Brown; 0135, 0524); and a message transmitter to transmit the message from the internal VLAN manager to the partition (see Pulsipher; 0014-0015).

20. The apparatus of claim 19, the network agent is adapted to validate the partition parameters based upon constraints associated with an operating system installed in the partition (Brown; 0160, 0213).

21. The apparatus of claim 20, wherein the partition is adapted to execute within the operating system when invoked by the partition (see Pulsipher; 0014-0015).

22. The apparatus of claim 19, wherein the partition is adapted to invoke the network agent in response to an interrupt from the message transmitter, after the message is stored in memory that is accessible by the partition (Brown; 0532, 544).

23. The apparatus of claim 19, wherein the internal VLAN manager comprises a configuration manager to associate the global parameters with an internal VLAN identification, the internal VLAN identification being associated with the internal network, to obtain a list of the partitions participating with the internal network, and to create a

network switch based upon the internal VLAN identification and the list (Brown; 0135, 0524)..

24. The apparatus of claim 19, wherein the internal VLAN manager is adapted to interact with an administrator to determine the internal VLAN identification, global parameters and ranges, and the partition parameters via a console (Brown; 0135, 0524).

25. The apparatus of claim 19, wherein the internal VLAN manager comprises a configuration manager to transmit another message to retrieve current partition parameters associated with the partition, communicate with an administrator to modify the current partition parameters, and transmit the modified partition parameters to the partition to reconfigure the internal network interface (Brown; 0666, 0732).

26. The apparatus of claim 19, wherein the internal VLAN manager is adapted to compare global parameters stored locally by the partition against a master copy of the global parameters to determine whether the network interface is to be reconfigured by the internal VLAN manager (Brown; 0908; 0666).

27. A system for auto-creation of network interfaces, the system comprising: partitions, each partition having a network agent to be invoked upon receipt of a message, wherein the network agent is adapted to configure an internal network interface of the internal

network interfaces in response to the message; an internal VLAN manager to configure

an internal network to facilitate communication between at least two of the partitions, the

internal VLAN manager to determine distinct partition parameters for each partition

based upon   parameters and ranges associated with the internal network and to

generate messages for each partition (Brown; 0135, 0524), to configure the internal

network interfaces; and a partition manager to transmit the messages from the internal

VLAN manager to the at least two partitions, each of the messages being transmitted to

a different partition of at least two partitions based upon a list of the at least two of the

partitions indicating an association with the internal network partition (see Pulsipher;

0014-0015).

28. The system of claim 27, wherein the internal VLAN manager comprises a

configuration manager to associate the global parameters with an internal VLAN

identification, the internal VLAN identification being associated with the internal network,

to obtain a list of the at least two of the partitions, and to create a network switch based

upon the internal VLAN identification and the list (Brown; 0135, 0524).

29. The system of claim 28, wherein the internal VLAN manager is adapted to interact

with an administrator to determine the internal VLAN identification, global parameters

and ranges, and the partition parameters via consoles (Brown; 0135, 0524; 0908).

30. The apparatus of claim 27, wherein the internal VLAN manager comprises a

configuration manager to transmit another message to retrieve current partition

parameters associated with the at least two of the partitions, communicate with an

administrator to modify the current partition parameters, and transmit the modified

partition parameters to the at least two of the partitions to reconfigure the internal

network interfaces (Brown; 0666, 0732).

31. A computer readable medium containing a program which, when executed,

performs an operation, comprising: determining an internal VLAN identification

associated with an internal network; obtaining global parameters and ranges associated

with the internal network (Brown; 0135, 0524; 0908); determining that a partition is

participating with the internal network; determining partition parameters for the partition

based upon the (Brown; 0135, 0524); parameters and ranges; generating a message

having the partition parameters and being associated with a network agent; and

invoking the network agent via transmission of the message, the network agent being

responsive to the message to configure an internal network interface based upon the

partition parameters partition (see Pulsipher; 0014-0015).

32. The computer readable medium of claim 31, wherein the operation further

comprises transmitting the global parameters and internal VLAN identification to a

partition manager to create an internal network switch, wherein the internal network

switch is adapted to transmit transactions from the partition to at least one other

partition participating with the internal network (Brown; 0135, 0524, 0908).

33. The computer readable medium of claim 31, wherein the operation further comprises generating a request for current partition parameters associated with the internal network interface and presenting the current partition parameters to an administrator for reconfiguring the internal network interface (Brown; 0666, 0732).

34. A computer readable medium containing a program which, when executed, performs an operation, comprising: receiving a message having partition parameters, from an internal VLAN manager, wherein the message is associated with a network agent; invoking the network agent in response to receiving the message; and configuring the internal network interface based upon partition parameters via the network agent partition (see Pulsipher; 0014-0015).

35. The computer readable medium of claim 34, wherein the operation further comprises generating a reply in response to the message, wherein the reply indicates whether configuring the internal network interface is successful, and transmitting the reply to the internal VLAN manager partition (see Pulsipher; 0014-0015).

36. The computer readable medium of claim 34, wherein the operation further comprises validating the partition parameters upon receipt of the message against limitations associated with a partition, wherein the network agent is executed by the partition.

37. The computer readable medium of claim 34, wherein configuring the internal network interface comprises creating a VLAN device driver and associating the VLAN device driver with a TCP/IP stack (Brown, 0654).

38. A computer readable medium containing configuration information accessible by an internal virtual local area network (VLAN) manager to set up an internal VLAN, the configuration information comprising: an internal VLAN identification to identify the internal VLAN; global parameters and ranges for configuring the internal VLAN switch for the internal VLAN (Brown; 0135, 0524; 0908); at least one partition associated with the internal VLAN; and partition parameters to configure an internal network interface associated with the at least one partition, the internal network interface to be adapted by an internal network agent based upon the partition parameters for communication via the internal VLAN switch partition (see Pulsipher; 0014-0015).

39. The computer readable medium of claim 34, wherein the global parameters and ranges comprise parameters from a group of parameters comprising a frame size, a duplex setting, and a retry value (Brown; 0618).

40. The computer readable medium of claim 34, wherein the at least one partition comprises a partition managed by a partition manager in a logically partitioned system (see Pulsipher; 0014-0015).

41. The computer readable medium of claim 34, wherein the partition parameters

comprise parameters from a group of parameters comprising an Internet protocol

address, a port number, a VLAN interface name (Brown; 0455, 0801, 0994).

Conclusion

2.   ***This action is made Non-Final***. Any inquiry concerning this communication or

earlier communications from examiner should be directed to Jude Jean-Gilles whose

telephone number is (571) 272-3914. The examiner can normally be reached on

Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nathan Flynn, can be reached on (571) 272-1915. The fax phone number

for the organization where this application or proceeding is assigned is (571) 273-3301.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (571) 272-

0800.

/Jude J Jean-Gilles/

Primary Examiner, Art Unit 2143

JJG

May 27, 2008